WS-15J

October 11, 2001

Robert J. Whiting
Chief, Regulatory Branch
U.S. Army Corps of Engineers
St. Paul District
St. Paul, MN 55101-1638

RE: 94-01298-IP-DLB

Dear Mr. Whiting:

We have received the draft Crandon Mine Project EIS Wetland Resources Analysis Plan, dated September 2001 and prepared by Dr. Jim Arndt and Dr. John Almendinger. Thank you for the opportunity to review this document. It is understood that comments are welcome on the COE's wetland assessment throughout the process and not just at this draft workplan stage.

General Comment: By reading this draft plan it is evident that Montgomery Watson Harza (MWH, the COE's third party EIS contractor) does not consider the EPA's HSPF (Hydrology Simulation Program - Fortran) surface water model as a potential resource to help support the wetland impact analysis. EPA's offer to provide MWH with a presentation on HSPF results to date is open and we look forward to briefing MWH hopefully in the near future.

1) Section 2.0, Issues:
In the first sentence the word "would" should be changed to "will". Also, unless impacts to Trust resources is implied and to be included within all of the issues, an additional bullet should be added to this section stating, "What are the impacts on Trust resources?".

Is the fourth bullet "wetland restoration" referring to the pumping of mitigation water into wetlands in the mine area or is it referring to the wetland compensation site in Shawano County? If it is referring to the mitigation water, then an additional bullet needs to be added regarding compensation site issues (or are these to be handled under a different plan)?

2) Section 4.1, Impact Area of Influence and Map 1:
The Map will need to be revised based on the actual outcome of the COE's MODFLOW analysis. As mentioned at the meeting on September 19, 2001, the COE will evaluate the impacts based on the (worst case scenario) outcome of the model and not predetermine the

inflow to be the 600 gpm as being considered by the WDNR.

3) Section 4.2, Significance Criteria:
This sentence states that the following criteria only emphasizes local (short and long-term) impacts. Are there any impacts that need to be reviewed on a regional basis? For example, will the change in function only be a local concern or can it be a regional concern, i.e., loss of recreation or loss of fishing areas, loss of flood retention waters, etc.?

4) Section 4.2.1, Change in Jurisdictional Status:
As a note, the 3 parameters listed under this section; hydrology, plants and soils do define what is a wetland, but not whether the wetland is jurisdictional for regulatory purposes. Regulated wetlands must be waters of the United States, which means a link to interstate or foreign commerce.

Also, in the first bullet, first paragraph, under this section states, ".... for greater than 95 percent of the growing season in most years". The third paragraph under this bullet states, "... growing season and must be of a duration equal to or greater than 5 percent of growing season length". This was discussed at the meeting on September 19, 2001 in Middleton, but the statements still seem contradictory to each other and should be made clearer.

In the second bullet, the 50% loss seems high, especially when considering wild rice concerns. Normal plant fluctuations could hit 50% once in a while but plants tend to bounce back if they have one season of bad growth due to the dormant nature of plant seeds. If impacts from the mine, however, lower plant populations (even at less than 50%) for several growing seasons in a row, this may seriously impact plants such as wild rice, and give way for other plant species to colonize.

5) Section 4.2.2, Changes in Wetland Function:
The last sentence of this section states that specific significance criteria cannot be established at this time without a better understanding of how wetland functions are distributed in individual wetlands and throughout the impact area of influence. Section 5.1, Definition of Baseline, states that existing wetland delineations, wetland hydrogeological settings, and wetland function assessments will represent the baseline condition, but Section 4.2.2. states that what the COE has presently is not enough to fully understand the wetland functions. Section 5.2.5; Impacts on Wetland Functions states that the new functional values will be compared to the old functional values. This plan does not seem to indicate how and when the COE/MWH will develop the wetland function assessments needed to be able to determine how the wetland functions are distributed and therefore used to establish the baseline.

6) Section 5.2.1, Introduction:
The second sentence of this section states that wetland conditions could potentially be re-established on the proposed wetland restoration site. Why does this sentence state, "could potentially"? Is there a chance that the re-created wetlands will fail or otherwise not be established?

Also, an additional bullet to this section should reflect a change agent associated with the re-saturation of areas that may have dried out due to pumping or re-channeling. Excess metals or sediment/soils may be released once these areas are re-saturated. Also, soil subsidence may occur when the area is dry and may preclude reestablishment of a wetland of similar value prior to mining.

7) Section 5.2.3, Impacts of Groundwater Drawdown and Groundwater Mounding:
The third paragraph states that the effects of the Proposed Action surface water supplementation plan will be incorporated in to the impact evaluation for lakeside and streamside wetlands by comparing baseline hydrologic conditions with those proposed in the restoration plan. Will the COE and MWH first look at the impacts to the wetlands without any input from the supplementation plan? Then after this "baseline" impact, the COE should look at how the supplementation plan will mitigate any potential impacts. In this way, the COE can evaluate the potential adequacy of the supplementation plan.

The fourth paragraph needs to be expanded. Not enough information is given as to what MWH will be doing to evaluate the potential success of the wetland compensation site. (See comment 9 below)

In the fifth paragraph, it states, "The surface water-modeling group would .....". The plan needs to make clear who this includes. Does this include the EPA's HSPF modelers?

8) Section 5.2.4, Impacts on Wetland Plant Communities:
EPA agrees with the statements made by John Coleman at the September 19, 2001 meeting, regarding the concern that water level is only part of the hydrologic regime and that the COE needs to evaluated loss (or gain) of flow through the wetlands. This flow carries needed nutrients to the wetland and loss (or gain) of this flow may not only impact the 'receiving' wetland, but may also impact downstream areas as well. Simple replacement or mitigation of flow through water may not adequately replace the needed nutrients that occur naturally. How will the COE's plan address this concern? (The report written by George Howlett, Menominee Tribe, entitled "A Quercus schuettei Population at Bur Oak Swamp, Part II, Ecology of Bur Oak Swamp", dated February 20, 1998, shows how these nutrients are needed for the Bur Oak Swamp.)

9) Section 6, Procedures for Developing Mitigation:
This section is difficult to comment on since the wetland significance criteria has not yet been incorporated into this plan, nor has the Significance Criteria Document been finalized regarding wetland resources. Additionally, the compensatory wetland mitigation measures need to be discussed in the plan as these mitigation measures may also cause impacts to other wetland areas or may change the function or size of the current wetlands. Therefore, review and comments on wetland issues and mitigation issues will need to be on-going throughout the development of the draft EIS.

A concern from a previous EPA review regarding the off-site compensatory wetland proposal is that it appears that wetland compensation plan proposes unnecessarily expensive excavation work while actually burying an additional 11.7 acres of potentially restorable wetland. In other

words, it appears that a bias for waterfowl hunting drives the mitigation design rather than a replacement of the lost functional value of the in kind wetlands degraded at the mine site. The excavated spoils will be stockpiled over 11.7 acres of restorable wetland immediately adjacent to the mitigation site. It appears preferable to eliminate excavation and add the 11.7 acres of restorable wetland to the credit side of the no net loss equation. The COE also needs to ensure that the prior converted wetland determination by the U.S. Dept. of Agriculture - Natural Resource Conservation Service at the mitigation site is field truthed and valid. (We are not sure if this comment is still valid or if it is appropriate in this plan, but to date, we have not seen this addressed elsewhere.)

10) Section 7.0, Dependency Items and Relationship to Other Resources;
EPA's HSPF model should be able to provide input into several of the projected changes listed within this section. Review of the HSPF model (to date) is available to COE, MWH, and others, upon request. A tentative HSPF meeting is planned for early to mid-November with several of the cooperating agencies and tribes.

The above comments are in addition to all the comments raised by EPA and others at the meeting in Middleton on September 19, 2001. I have not had the opportunity to review my meeting notes in detail to summarize the appropriate wetland comments discussed at the Middleton meeting and to include them herein.

Thank you for the opportunity to review this document and to provide comments to you. If you have any questions on the above, please give me a call at 312-886-7252.

Sincerely,

Daniel J. Cozza, Crandon Mine Project Manager
U.S. Environmental Protection Agency

cc:
Jon Ahlness, COE
Gordon Reid, NMC
Doug Cox, Menominee
Ken Fish, Menominee
Roman Ferdinand, Mole Lake
Christine Hansen, FCP
John Coleman, GLIFWC
Ann McCammon Soltis, GLIFWC
Bill Tans, WDNR
Mary Manydeeds, BIA
John Clancy, Godfrey and Kahn/FCP